

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A method for detecting commercials in a compressed video stream, the method comprising the acts of:
compressing video data and generating compressed video data;
detecting a plurality of separators based on said generated compressed video data, each of said separators is defined by detecting at least two consecutive scene changes within a number of consecutive frames;

determining the beginning and ending of a commercial break among said plurality of separators by comparing a gap between said plurality of separators, wherein the number of consecutive frames is less than a further number of frames of the commercial break.

2. (Previously Presented) The method of claim 1, wherein the

act of determining the beginning and ending of a commercial break further comprises the act of:

identifying one of said separators as the beginning of a commercial break when the gap between said one separator and a previous separator is greater than a predetermined threshold value.

3. (Previously Presented) The method of claim 1, wherein the act of determining the beginning and ending of a commercial break further comprises the acts of:

identifying one of said separators as the ending of a commercial break when the gap between said one separator and a next separator is greater than a predetermined threshold value.

4. (Original) The method of claim 1, wherein said plurality of separators is inserted into said video data at a transmitting source.

5. (Previously Presented) The method of claim 1, wherein the act of detecting said plurality of separators in said compressed video data includes identifying an abrupt increase in an average

Mean Absolute Difference (MAD) value of said generated compressed video data.

6. (Previously Presented) The method of claim 1, wherein the act of detecting said plurality of separators in said compressed video data is performed based on an increase in an average Mean Absolute Difference (MAD) value of said generated compressed video data.

7. (Previously Presented) A method for detecting commercials in a compressed video stream, the method comprising the acts of:

encoding incoming video data received from a transmitting source to generate compressed video data;

detecting a plurality of separators in said generated compressed video data, each of said plurality of separators is defined by detecting at least two consecutive scene changes within a number of consecutive frames;

determining the beginning and ending of a commercial break by comparing a gap between said plurality of separators to a predetermined threshold value, wherein the number of consecutive

frames is less than a further number of frames of the commercial break;

identifying one of said separators as the beginning of a commercial break when the gap between said one separator and a previous separator is greater than said predetermined threshold value; and

identifying another one of said separators as the ending of a commercial break when the gap between said another one separator and a next separator is greater than said predetermined threshold value.

8. (Previously Presented) The method of claim 7, wherein said plurality of separators is selectively inserted into said incoming video data at said transmitting source.

9. (Previously Presented) The method of claim 7, wherein the act of detecting said plurality of separators in said compressed video data is performed based on a change in an average Mean Absolute Difference (MAD) value of said generated compressed video data.

10. (Previously Presented) An apparatus for detecting commercials in a compressed video stream, comprising:

a video encoder for receiving uncompressed video data and generating compressed video data;

a detector for detecting a plurality of separators in said compressed video data, each of said separators being defined by detecting at least two consecutive scene changes within a number of consecutive frames;

a processor configured to edit said compressed video data by identifying the beginning and ending of a commercial break in said compressed video data; and

a playback selector for editing said compression video data to skip said commercial break for a subsequent viewing, wherein the number of consecutive frames is less than a further number of frame of the commercial break.

11. (Original) The apparatus of claim 10, further comprising a memory for storing said compressed video data with the identification of the beginning and ending of said commercial

break.

12.(Original) The apparatus of claim 10, further comprising a decoder for generating decompressed video data.

13.(Original) The apparatus of claim 10, wherein said compressed video data includes an identifier of a presence of a sequence of uni-color frames.

14.(Original) The apparatus of claim 10, wherein said compressed video data includes an identifier of a transition between a television program and said commercial break.

15.(Original) The apparatus of claim 10, wherein said compressed video data includes an identifier of a transition between the successive commercial programs.

16.(Original) The apparatus of claim 10, wherein said compressed video data includes an identifier of at least two successive scene cuts.

17.(Original) The apparatus of claim 10, wherein said detector detects said plurality of separators based on an abrupt change in an average Mean Absolute Difference (MAD) value of said generated compressed data.

18.(Original) The apparatus of claim 10, wherein said compressed video data includes at least one of a quantizer scale, motion vector data, bit rate data, a variation of luminance within a frame, a variation of color within a frame, a total luminance of a frame, a total color of a frame, change in luminance between frames, a mean absolute difference, and a quantizer scale.

19.(Previously Presented) The apparatus of claim 12, wherein said processor is programmed to identify an indicator of at least two scene cuts in said decompressed video data and to generate an identifier of the location in a sequence of said decompressed video data coinciding with said indicator of at least two said scene cuts.

20. (Previously Presented) An apparatus for detecting a commercial in a video stream, comprising a detector configured to detect the commercial by detecting at least two consecutive scene changes in a number of consecutive frames the video stream, wherein the number of consecutive frames is less than a further number of frame of the commercial.

21. (Currently Amended) The apparatus of claim 20, wherein the number of consecutive frames is three or four.

22. (Currently Amended) The method of claim 1, wherein the number of consecutive frames is three or four.

23. (Currently Amended) The method of claim 7, wherein the number of consecutive frames is three or four.

24. (Currently Amended) The apparatus of claim 10, wherein the number of consecutive frames is three or four.